Second Five-Year Review Report

Hunts Disposal Landfill

Caledonia, Wisconsin
September 2006

Prepared by:

Wisconsin Department of Natural Resources
for the
United States Environmental Protection Agency
Region 5

U.S. EPA ID No. WID980511919

Approved by: **Date:**

for **Richard C. Karl, Director**
Superfund Division

9/26/06

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List of Acronyms

C&NW	Chicago and North Western
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
ES	Enforcement Standard
HDL	Hunts Disposal Landfill
HSRG	Hunts Site Remediation Group
IC	Institutional Control
LFG	Landfill Gas
NCP	National Contingency Plan
NPL	National Priorities List
O&M	Operation and Maintenance
P&T	Pump and Treat
PA/SI	Preliminary Assessment/Site Inspection
PAL	Preventive Action Limit
PRP	Potentially Responsible Party
QAPP	Quality Assurance Project Plan
RA	Remedial Action
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RD/RA	Remedial Design/Remedial Action
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
SDMS	Superfund Data Management System
SOW	Statement of Work
TCL	Target Compound List
U.S. EPA	United States Environmental Protection Agency
UPS	Uninterruptible Power Supply
USACE	U.S. Army Corps of Engineers
VOC	Volatile Organic Compound
WACL	Wisconsin Alternative Concentration Limit
WDNR	Wisconsin Department of Natural Resources

Executive Summary

Hazardous substances, pollutants, or contaminants remain at the Hunt's Disposal Landfill Site and require continued O&M of the RA, as well as access controls. Exposure pathways that could result in unacceptable risks are being controlled through the implemented RA. The remedy continues to operate and is protective of human health and the environment. Periodic flooding of the Root River continues but does not appear to adversely affect the effectiveness of the remedy. Long-term protectiveness of the remedial action will be verified by continued monitoring of the landfill gas and groundwater conditions at the site.

Exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of the remedy appear to be valid. Due to the implementation of the remedy, the risk has decreased. Data indicate that there continue to be no ecological risks, and human health risks were addressed by the remedy. Institutional controls have been implemented (which will be subject to an institutional controls study to ensure continued adequacy implementation) and the technical issues address risk. In order for long-term protectiveness to be achieved, effective institutional controls must be implemented and maintained. An institutional controls study and plan will be implemented, maintained and monitored within six months after the date of this Five-Year Review Report.

Five Year Review Summary Form

SITE IDENTIFICATION		
Site name *(from WasteLAN)*: Hunts Disposal Landfill		
EPA ID *(from WasteLAN)*: WID980511919		
Region: V	**State: WI**	**City/County: Village of Caledonia / Racine**
SITE STATUS		
NPL status: ☐ Final ☐ Deleted X Other (specify) **Second Five-year Review**		
Remediation status (choose all that apply): ☐ Under Construction ☐ Operating **X** Complete		
Multiple OUs?* ☐ YES **X** NO	**Construction completion date: 12 /31 /97**	
Has site been put into reuse? ☐ YES **X** NO		
REVIEW STATUS		
Lead agency: **X** EPA ☐ State ☐ Tribe ☐ Other Federal Agency		
Author name: Thomas Wentland		
Author title: Project Manager	**Author affiliation**: Wisconsin Department of Natural Resources	
Review period:** January 5, 2006 to September 2006		
Date(s) of site inspection: April 28, 2006		
Type of review: **X** Post-SARA ☐ Pre-SARA ☐ NPL-Removal only ☐ Non-NPL Remedial Action Site ☐ NPL State/Tribe-lead ☐ Regional Discretion		
Review number: ☐ 1 (first) **X** 2 (second) ☐ 3 (third) ☐ Other (specify)		
Triggering action: ☐ Actual RA Onsite Construction at OU #____ ☐ Actual RA Start at OU#____ ☐ Construction Completion **X** Previous Five-Year Review Report ☐ Other (specify)		
Triggering action date *(from WasteLAN)*: 09/28/2001		
Due date *(five years after triggering action date)*: 09/ 28/2006		

Five-Year Review Summary Form, continued

Issues:

No significant issues were identified during the technical assessment, document review, or site inspection for the site remedy. The following issues were identified, but do not affect the protectiveness of the remedy:

- Minor vegetated rivulets were observed along the landfill perimeter fence and should be addressed by the HSRG through the addition of soil cover or material to minimize erosion under the fence.
- Although the groundwater extraction system is operating as designed, an inward gradient is not maintained at all locations within the slurry wall. Groundwater from the HDL Site likely flows through the opening in the slurry wall. However, no adverse impacts have been identified.
- In order for long-term protectiveness to be achieved, effective institutional controls must be implemented, maintained, and monitored.

Recommendations and Follow-up Actions:

The following actions should be considered for continued O&M and optimization of the implemented remedy:

- Complete an IC study for the Site within six months after the date of this Five-Year Review Report;
- The HSRG should consider preparing and submitting the discussed "Pilot Test" Work Plan to the U.S. EPA and the WDNR to evaluate the efficacy of maintaining the current risk protection for the facility while modifying the remedy components and sampling protocol;
- The HSRG should consider optimizing the groundwater monitoring program for the site to more effectively and efficiently monitor the site;
- As part of its current routine maintenance, the HSRG should continue to inspect the vegetated rivulets along the fence to determine if additional erosion protection is required;
- Continued monitoring of MW11D to evaluate the inward gradient of the slurry wall;
- Continued monitoring of gradient head difference at location PA1/PB1 to ensure protectiveness; and
- An institutional controls study and plan should be completed for the site to ensure long-term protectiveness of the remedy.

Protectiveness Statement:

Hazardous substances, pollutants, or contaminants remain at the Hunt's Disposal Landfill Site and require continued O&M of the RA, as well as access controls. Exposure pathways that could result

Five-Year Review Summary Form, continued

in unacceptable risks are being controlled through the implemented RA. The remedy continues to operate and is protective of human health and the environment. Periodic flooding of the Root River continues but does not appear to adversely affect the effectiveness of the remedy. Long-term protectiveness of the remedial action will be verified by continued monitoring of the landfill gas and groundwater conditions at the site.

Exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of the remedy appear to be valid. Due to the implementation of the remedy, the risk has decreased. Data indicate that there continue to be no ecological risks, and human health risks were addressed by the remedy. Institutional controls have been implemented (which will be subject to an institutional controls study to ensure continued adequacy implementation) and the technical issues address risk. In order for long-term protectiveness to be achieved, effective institutional controls must be implemented and maintained. An institutional controls study and plan will be implemented, maintained and monitored within six months after the date of this Five-Year Review Report.

Second Five-Year Review Report
For the
Hunts Disposal Landfill Superfund Site
Caledonia Township
Racine County, Wisconsin

1.0 INTRODUCTION

The purpose of the five-year review is to determine whether the remedy at a site is protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in Five-Year Review reports. In addition, Five-Year Review reports identify issues found during the review, if any, and identify recommendations to address them.

The U.S. Environmental Protection Agency (U.S. EPA), with the assistance of the Wisconsin Department of Natural Resources (WDNR), is preparing this Five-Year Review report pursuant to CERCLA §121 and the National Contingency Plan (NCP). CERCLA § 121 states:

> *If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such review.*

The Agency interpreted this requirement further in the NCP; 40 CFR § 300.430(f)(4)(ii) states:

> *If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.*

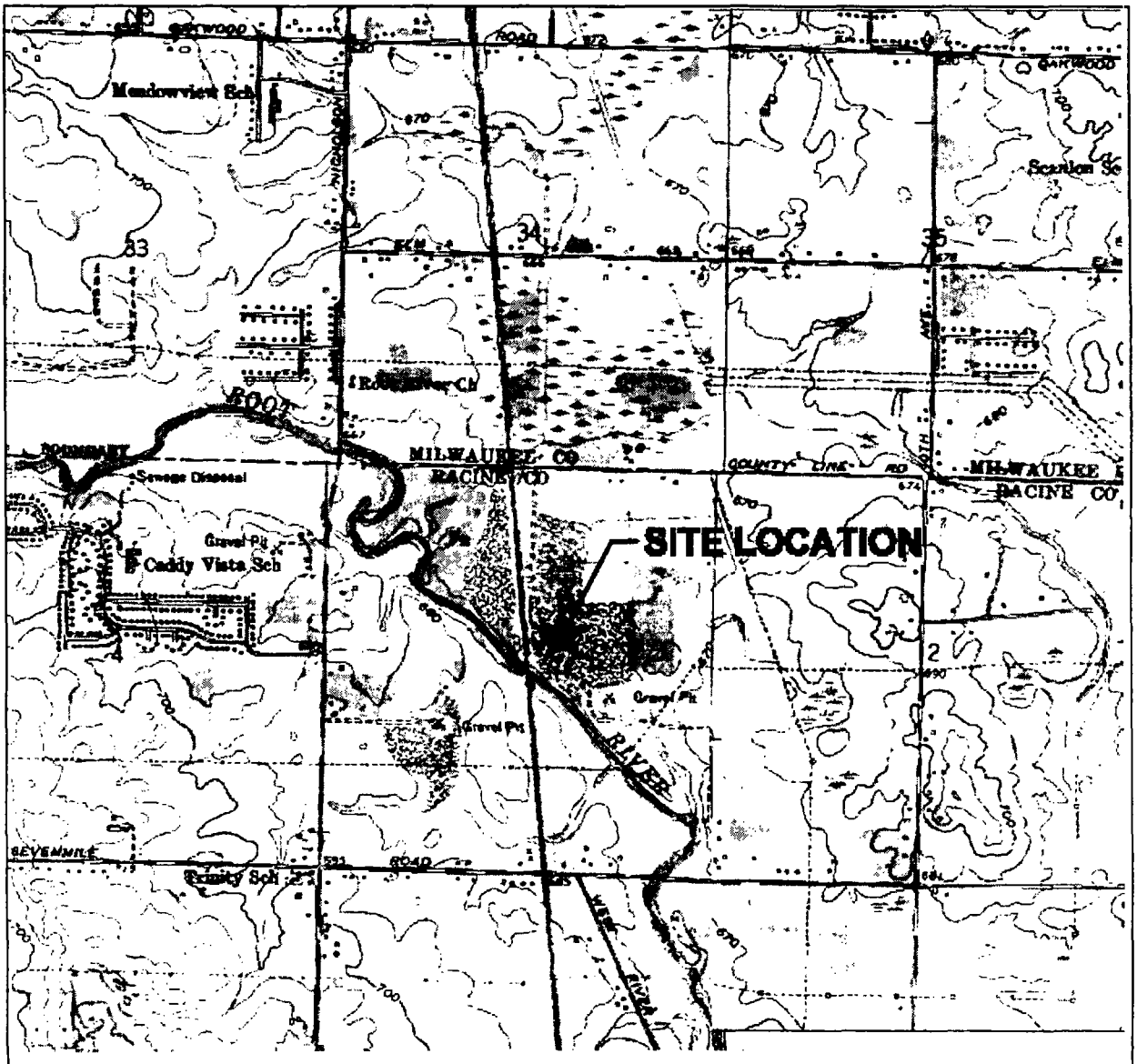
The WDNR, with assistance from U.S. EPA, conducted the five-year review of the remedy implemented at the Hunt's Disposal Landfill (HDL) Site in Caledonia Township, Wisconsin. This report is the second five-year review for the HDL Site. The five-year review is a statutory requirement due to the fact that hazardous substances, pollutants, or contaminants remain at the site above levels that allow for unlimited use and unrestricted exposure if the administrative and engineering controls were removed.

2.0 SITE CHRONOLOGY AND BACKGROUND

The HDL Site was an inactive 35-acre landfill which is part of an 84-acre parcel (including a 25-acre lake) located in southeastern Wisconsin, about 8 miles north of Racine (see Figure 1 for site map). The HDL Site, initially an abandoned sand and gravel pit, began operating as an open dump in 1959. Municipal and industrial wastes were dumped at the site from 1959 to 1974. The parcel is currently owned by the Racine County Parks Department and was originally purchased for inclusion in the Racine County Root River Parkway System. The site borders the Root River in a sparsely populated agricultural area of Caledonia Township in Racine County. The river itself is a shallow meandering stream which is about 25 to 40 feet wide and about 3 feet deep much of the year. The

site is located immediately south of County Line Road and is approximately 1.5 miles west of State Highway 32. The Chicago and North Western (C&NW) Railroad tracks run north-south and are located just west of the site. Approximately 40 homes are located within ½-mile of the site. One mile to the west is a rural community of about 150 homes. The residents around the site rely on private wells for their water supply.

Two aquifers have been found to exist below the landfill, with groundwater flowing in a southwesterly direction toward the river. The upper aquifer, formed out of glacial sand, gravel, and till outwash, is found approximately 25 to 35 feet below ground surface. It is this aquifer that has been impacted by pollutants found in the landfill and, consequently, subject to on-site treatment



NOTES:

1. BASE MAP DEVELOPED FROM THE FRANKSVILLE AND RACINE NORTH, WISCONSIN 7.5 MINUTE U.S.G.S. TOPOGRAPHIC QUADRANGLES DATED 1958. PHOTOREVISED 1971. FRANKSVILLE PHOTOINSPECTED 1976.

0' 1000' 2000' 4000'

APPROXIMATE SCALE

EarthTech

A Tyco International Ltd. Company

FIGURE 1

SITE LOCATION MAP

HUNT'S DISPOSAL LANDFILL SITE
TOWN OF CALEDONIA, WISCONSIN

84100

AUG 2006

described below. The lower aquifer is composed of dolomite (i.e., limestone) bedrock, approximately 40 – 80 feet below ground surface, and is approximately 200 feet thick.

This lower aquifer is the source of the community's water supply. However, a continuous 15-foot thick clay-till layer, acting as an aquitard or barrier, has been detected between the two aquifers beneath the HDL Site. The existence of this continuous clay-till layer was an important factor in the design of the selected remedy.

In 1974, the landfill's operating license renewal application was denied and the site, consequently, was to have been closed, pursuant to existing State regulations. The total landfill volume was estimated at 788,000 cubic yards, of which an estimated 620,000 cubic yards was waste-type material. Approximately 168,000 cubic yards of this waste material are below the water table (upper aquifer). The U.S. EPA conducted a preliminary assessment and site inspection (PA/SI) in 1984. Groundwater, surface water, soil, and river sediments were sampled and analyzed. Results from this preliminary testing revealed that groundwater and soil contamination existed at the site. Inorganic contaminants of concern include arsenic, barium, chromium, manganese, and nickel. Organic contaminants include vinyl chloride, trichloroethene, 1,1-dichloroethane, 1,1-dichloroethene, benzene, naphthalene, and xylene. The source of this contamination was attributed to the landfill, particularly since some of the wastes were located below the water table, thus providing a continuing source of groundwater contamination. The highest degree of groundwater contamination was found between the landfill and the Root River and along the southern tip of the landfill. It was determined during the investigation that the contaminated groundwater under the landfill flows into the Root River. Due to the upgradient location of the nearby residential wells, contamination of the drinking water supply from the landfill was not deemed a concern. As far as soil and sediment contamination, the areas of concern were found to be in the southwest edge of the landfill and the Root River, at the southern tip of the landfill, and at the northern edge of the landfill adjacent to the nearby lake. In 1986, based on the results of the PA/SI, the WDNR requested that the HDL Site be considered for inclusion on the National Priorities List (NPL). The U.S. EPA placed the HDL Site on the NPL on July 21, 1987.

U.S. EPA completed the Remedial Investigation/Feasibility Study (RI/FS) in July 1990, and the proposed plan for U.S. EPA's proposed source control remedy for the landfill was issued on July 26, 1990. A public meeting occurred on July 31, 1990. In August 1990, U.S. EPA sent general notice letters to approximately 60 Potentially Responsible Parties (PRPs). The general notice letters informed the PRPs of their potential liability, provided them with copies of U.S. EPA's proposed plan, and invited them to an introductory meeting hosted by the U.S. EPA and WDNR in Chicago Illinois. A number of PRPs attended the meeting, where they were given an overview of the results of the RI/FS and proposed remedy for the site. During the meeting, the PRPs were encouraged to organize themselves and to appoint a steering committee. Subsequent to the closing of the public comment period on the proposed plan, the U.S. EPA, with State of Wisconsin concurrence, issued a Record of Decision (ROD) on September 29, 1990. The following table presents a summary of the site chronology.

Chronology of Site Events

Event	Date
Started of Open Dump Operation	1959
License Renewal Denied	1974
U.S. EPA Conducts (PA/SI)	1984
WDNR Petitions U.S. EPA to Include HDL on NPL	1986
U.S. EPA Places HDL on NPL	July 21, 1987
U.S. EPA Completes RI/FS	July 1990
U.S. EPA Issues ROD	September 29, 1990
Consent Decree Entered	April 21, 1992
RA Started	September 18, 1995
RA Completed	December 1997
U.S. EPA Completed First Five-Year Review	September 2001

The ROD presented the selected remedial action for the HDL Site. The principal threats identified at the site, as determined in the risk assessment, were groundwater contamination, contaminated soil, and exposed landfill waste materials. The remedial action addresses the principal known threats at the site by containment of contaminated landfill materials, soil, and groundwater. The function of the remedy is to seal off the HDL Site as a source of contamination and reduce the risks associated with exposure to contaminated materials, thereby mitigating the threat to human health and the environment. The major components of the selected remedy include:

- Installation of a fence around the landfill site;
- Consolidation of contaminated soil and sediment onto the landfill;
- Construction of a multi-layer landfill cap over the landfill and consolidated soil and sediment in compliance with RCRA Subtitle D requirements;
- Construction of a slurry wall down to the low permeability clay-till layer and around the subsurface perimeter of the landfill;
- Construction of a groundwater pump and treat system employing inward gradient control;
- Construction of an active landfill gas collection and treatment system;
- Construction of groundwater monitoring wells to verify the protectiveness and effectiveness of the remedy. Monitoring of existing residential wells will be conducted as part of the selected remedy to provide additional verification of the effectiveness of the remedy; and
- Institutional controls governing groundwater use and development of the landfill site.

Implementation of this selected remedy reduced and controlled potential risks to human health posed by exposure to contaminated groundwater, soil, and sediments. Additionally, the remedy reduced potential human exposure to a carcinogenic risk of less than $1x10^{-6}$ and a non-carcinogenic hazard index of less than 1. The selected remedy is also protective of the environment by reducing the potential risks posed by site chemical discharging to groundwater, the Root River, the on-site lake, surrounding soils, sediments, and wetlands.

3.0 REMEDIAL ACTIONS

The Remedial Design/Remedial Action (RD/RA) phase of this project was conducted by the Potentially Responsible Parties (PRPs) in accordance with the Consent Decree (Civil Action 92-C-

433) entered into by the U.S. EPA and the PRPs on April 21, 1992. The construction activities were completed in two phases. The 95% Remedial Design for the slurry wall was approved for construction by the U.S. EPA in July 1995. RA activities began on September 18, 1995. Construction of the slurry wall was completed in November 1995. The RCRA landfill cap was installed in 1996, and the groundwater pumping and treatment system was installed in 1997. The final (100%) RD report was submitted to the U.S. EPA in December 1995. Conditional approval of the final RD report was given by the U.S. EPA on June 17, 1996. The few remaining issues to be resolved were addressed by the PRPs on June 27, 1996. The U.S. EPA conducted oversight of the PRP RD/RA construction management activities at the site with the assistance of the U.S. Army Corps of Engineers (USACE), via an Inter-Agency Agreement. All design plans and field activities were reviewed and approved by the U.S. EPA, in consultation with the WDNR, to ensure consistency with the ROD, the RD and RA work plans, the SOW, and Federal and State requirements.

3.1 REMEDY COMPONENTS

The design strategy for the site was based on achieving the following objectives:

- Reduce the amount of infiltration of surface water into and through the waste mass to control the generation of impacted water by the installation of a low permeability landfill cover system (RCRA cap);
- Control the potential for groundwater to migrate through the HDL Site to off-site areas by installation of a slurry wall;
- Extract and treat groundwater from the upper aquifer beneath the HDL Site to prevent migration of contaminants off site by maintaining an inward gradient;
- Manage the potential for landfill gas concentrations to build up under the landfill cap or migrate from the site by installing a landfill gas management system;
- Implement institutional controls (i.e., deed and access restrictions) at the site.

3.1.1 Institutional Controls

As stated previously, one of the major components of the selected remedial actions for the Site is institutional controls governing groundwater use and development of the landfill site. As stated in the ROD, ICs will be relied on to provide additional effectiveness to the remedy. Deed and use restrictions will be implemented to prohibit excavation, construction or other activities on or near the landfill which could interfere with the remedy. In addition, the ROD stated that a galvanized chain link fence be installed and maintained around the perimeter of the Site to reduce trespassing.

Administrative control actions are in place at the Site. One of the administrative controls put in place in 1992 were deed restrictions (see Appendix A for a copy of the Deed Restrictions on file with the Racine County Register of Deeds office, Vol.2177, pages 6-10) intended to limit future uses of the HDL Site (i.e., no potable well installation or site development). Personnel with authorized access to the site are required to know and understand site specific health and safety concerns associated with the site.

Perimeter fencing around the landfill has been installed at an elevation above the 100-year flood elevation. The on-site lake and the adjacent Root River have previously been deemed not to present a risk to human health or the environment. Fencing consists of a 7-foot high chain link fence with three strands of barbed wire with supporting posts placed at 10-foot intervals. A locking gate is installed at the access road entrance to the 84-acre property. A locked gate and perimeter fencing surrounds the main 35-acre landfill site, an additional fence encloses the landfill gas blower/flare to

discourage entry by unauthorized personnel and prevent vandalism. Warning signs are placed along the perimeter fence and on the locking gate. (See Appendix B for site photos.)

An institutional control study will be undertaken for the Site to review the effectiveness and enforceability of the ICs. Please refer to Section 6.0 for additional information regarding the assessment of institutional controls in place at this site and recommended further actions.

3.1.2 Multi-Layered Cap

Landfill Cap: Design criteria for the final cover were based on material properties and grade requirements of the State of Wisconsin. The design included a 6-inch grading layer, 2 feet of compacted clay, 18 inches of protective soil cover, and 6 inches of topsoil. Spoils from the slurry trench and gas collection trenches were reconsolidated onto the landfill. The 2-foot compacted clay layer has a hydraulic conductivity of $1x10^{-7}$ cm/sec and a minimum of 50 percent by weight passing the 200 sieve (0.074 mm). A service road was constructed on the final cover to allow service vehicle access for operation and maintenance. Surface water control at the site was incorporated into the final cap design. Permanent erosion control placed along the Root River consists of riprap and vegetation. A levee was not constructed since the elevation of the landfill was determined to be above the 100-year flood stage.

3.1.3 Slurry Wall

The slurry wall was constructed along and slightly outside of the perimeter of the landfill, except for a section adjacent to the Root River where there is an opening. The trench was excavated as a single unit to avoid seams and joints within the wall. The slurry mix consisted of natural Wyoming-type bentonite clay, soil, and water. The opening in the slurry wall was designed to allow impacted groundwater between the landfill and the Root River to be pulled into the site's interior groundwater extraction system. The purpose of allowing water to flow through the slurry wall opening is to allow for the flushing of contaminants out of the soil along the banks of the Root River and into the groundwater which, in turn, will be extracted and treated in the groundwater treatment system. The wall is approximately 4,000 feet long and 30 to 48 feet deep. The HDL SOW requires a hydraulic permeability of $1x10^{-7}$ cm/sec or less. The pre-final horizontal alignment of the slurry wall was selected based on the limits of the waste established by test pit excavation and reported in the pre-design report. The alignment of the wall was designed to be at least 6 feet outside of the defined limits of waste. Vertically, the wall was constructed to be plumb and penetrate a minimum of three feet into the lower clayey-till unit. Visual confirmation by a geotechnical engineer during slurry wall trenching activities documented that the excavation had indeed penetrated into the required depth of clayey-till unit. Slurry wall width is at least 2 feet, conforming to the calculated maximum hydraulic gradient requirement. Performance monitoring of the slurry wall is performed at four locations (three pairs of piezometers and one piezometer/monitoring well set) installed inside and outside of the completed wall. Water levels are measured at each location to monitor the hydraulic gradient across the wall.

3.1.4 Active Landfill Gas Collection System

The landfill gas (LFG) management system consists of five horizontal gas collection trenches, a collection header, blower, flare, and valves. The system consists of operating the blower which results in a vacuum effect that draws landfill gas through the collection trenches and header to the blower. The blower then sends the gas to the flare unit where the gas is combusted. Valves at each of the horizontal gas collection risers and the blower control the gas flow to maintain methane and oxygen content within prescribed ranges. The LFG system was designed and constructed to

operate in either a passive or active (i.e. flaring) mode depending on whether the emissions can comply with WDNR air regulations. The system currently operates in the flaring mode.

3.1.5 Groundwater Pumping and Treatment System

The installed pumping and treatment system includes the five groundwater extraction wells and submersible pumps, transfer piping, flow equalization tank, particulate filters, and an air stripping unit. A brief description of each subsystem is provided below. The design of the system includes maintaining a specified inward gradient (1-foot minimum across the slurry wall).

Extraction Wells: The number, locations, and extraction rates for the wells installed were based on the MODFLOW groundwater flow modeling software during the remedial design (RD). The model indicated that an optimum number of 5 wells, pumping at 3 gallons per minute at each well, will maintain a 1-foot inward gradient across the slurry wall. The 6-inch diameter (casing) wells are installed to a depth ranging from 40 to 65 feet below ground surface and are screened from above the static groundwater level of the upper aquifer down to the top of the clay-till layer. The well screens are constructed of stainless steel.

Transfer Piping: The transfer piping conveys the extracted groundwater to the on-site groundwater treatment system. The pipes were buried under the compacted clay layer and within the 6-inch grading layer of the landfill cover thereby protecting the piping from freezing. Groundwater is conveyed under pressure in the piping (i.e., force mains) to the treatment building.

Flow Equalization Tank: Sized at approximately 1,500 gallons and primarily constructed of polyethylene. The tank is located inside the groundwater treatment building and was designed to be self-supporting and to withstand hydrostatic water pressure plus a safety factor of 1.3. The water from the five extraction wells is pumped to the equalization tank before treatment by the air stripper.

Particulate Filters: Particulate filters are used in line between the equalization tank and the air stripper to remove particulate pumped from the wells and to prevent plugging of the air stripper. The filters consist of a cloth material with small pore size to minimize particulate transfer to the air stripper. The particulate filters are periodically changed as part of the on-going operations and maintenance activities.

Air Stripper: Removal of volatile organic compounds (VOCs) in the groundwater was the basis for choosing an air stripper as the primary treatment unit. Groundwater enters the top edge of the stripper and is aerated as air from the blower is diffused into the water. Treated groundwater is then discharged to the Root River. The system has a hydraulic design capacity of 50 gallons per minute and is designed to operate year-round.

3.2 SYSTEMS OPERATIONS AND MAINTENANCE (O&M)

The following monitoring program has been implemented during the operation and maintenance phase of this project:

- **Long-Term Groundwater Monitoring:** This groundwater monitoring program includes wells located inside and outside of the slurry wall. Groundwater samples are collected quarterly and analyzed for Target Compound List (TCL) VOCs, Aluminum, Arsenic, Barium, Chromium, Manganese, Nickel, Chloride, Sulfate, and Alkalinity.
- **Slurry Wall Monitoring:** Monthly water levels in select monitoring wells and piezometers around the site are used to measure the hydraulic gradient across the slurry wall. Four pairs

of wells are located across the slurry wall to measure the effectiveness of the groundwater extraction system in maintaining an inward gradient.

- **Groundwater Extraction and Treatment System Monitoring:** The primary parameters to be monitored include the total volume of groundwater pumped, treated, and discharged to the Root River, and the influent/effluent quality of the water. Effluent limits were provided by the WDNR. Quarterly influent and effluent sampling and monitoring and monthly system inspections are part of the O&M procedures.
- **Landfill Gas Extraction System Monitoring:** Monthly landfill gas monitoring, includes measuring methane and oxygen content and monthly system inspection.
- **Landfill Cover System:** The landfill cover is inspected to ensure run-on and run-off is maintained on the landfill cover.
- **Fence Maintenance:** The fence is inspected monthly to ensure site security is maintained.

Groundwater extraction, treatment, and monitoring will be required until it has been demonstrated that groundwater clean-up levels have been attained or until a petition is submitted and approved by the U.S. EPA that the standards are impracticable to attain. The SOW contained in the consent Decree requires the PRPs to demonstrate that the groundwater is at or below the prescribed cleanup levels for 60 consecutive months before it can cease operation of all or part of the groundwater monitoring program. This demonstration must be submitted to the U.S. EPA in a petition form, for approval before groundwater monitoring can cease.

The ROD indicates that a determination of technical or economic infeasibility may be made after five years of operation of the groundwater extraction system if it becomes apparent that the contaminant level has ceased to decline over time and is remaining constant at a statistically significant level above the preventive action limit (PAL) [or any WACL (Wisconsin Alternative Concentration Limit) established due to high background concentrations] in a discrete portion of the area of attainment, as verified by multiple monitoring wells. The HSRG may also want to consider the completion of an optimization study to evaluate remedial action modifications, especially related to the need for active treatment of groundwater, that may be more efficient while remaining equally protective of human health and the environment.

4.0 PROGRESS SINCE LAST REVIEW

The last five-year review was completed in 2001 and the protectiveness statement was as follows:

> *Hazardous substances, pollutants, or contaminants remain at the Hunt's Disposal Landfill Site which require continued O&M of the RA, as well as access controls. All exposure pathways that could result in unacceptable risks are being controlled through the implemented RA. The remedy continues to operate and is protective of human health and the environment. Long-term protectiveness of the remedial action will be verified by continued monitoring of the landfill gases and groundwater conditions at the site.*

At that time, several minor areas that required attention were identified. These issues are:

- Examination of the cap revealed minor erosion near the location of extraction Well E-2.
  - This issue was addressed by placing vegetative soil in this area.
- An evaluation as to the efficacy of extraction well E-5 to establish a sufficient inward gradient should be pursued.
  - This evaluation was completed through an analysis of water levels, pumping rates, and a groundwater flow model. The results indicate that outward differentials generally occur in the P4BR-MW11D pair while a primarily inward differential occurs at P3A-P3B. With the exception of manganese and one occurrence of vinyl chloride

(detected at 0.0014 mg/L), no exceedances of PALs or ESs have been detected in MW-11D over the past three years.

- The inward gradient head difference at location PA1/PB1 should be monitored to ensure that the established 1-foot head difference is achieved at that location.
    - Monitoring of water levels continues as specified in the SOW. The results of water level measurements and recorded pumping rates, as well as precipitation data and flood stages of the Root River have been presented in the Quarterly Reports submitted to the U.S. EPA and the WDNR. A Hunt's Site Remediation Group (HSRG) evaluation of the gradient at this well pair was presented to the U.S. EPA and the WDNR during an August 2005 meeting: an average gradient of 0.2 feet is maintained at this well pair, with limited occurrences of outward gradient during times of decreased water table.
- Vinyl chloride concentrations fluctuated at monitoring well MW-10S, and laboratory analytical results should be monitored to determine if additional action is warranted.
    - Groundwater monitoring has continued on a quarterly basis. Additionally, non-routine sampling of groundwater from MW-10S and surface water from the Root River was conducted in July 2005. Vinyl chloride concentrations in MW-10S continue a general downward trend from the peak concentration of 0.86 mg/L in August 2001. No vinyl chloride was detected in the July 2005 Root River samples. Therefore, the HSRG should continue to monitor the vinyl chloride concentrations in MW-10S.

The HSRG continues to maintain and improve the remediation systems at the HDL Site. Actions required in the SOW have been completed and reported to the U.S. EPA and the WDNR in Quarterly Reports submitted by the HSRG. Additional actions that have occurred at the HDL Site since the last review include the following:

- The computer control and monitoring system was apparently struck by lightening, rendering the system inoperable for approximately one year (from October 2003 to October 2004) while design and installation of a new system were completed. The computer and associated software as well as several of the circuit boards and the radio communication devices at the extraction wells were replaced. Additionally, an uninterruptible power supply (UPS) system was installed for the control system and the computer to prevent data loss and minimize system operation failure.
- The pumps were removed from the five extraction wells and cleaned in September 2004 and placed back into service.
- The air stripper was replaced in July-August 2005 to reduce maintenance time, as the unit had reached its expected operational duration. The new air stripper has a higher hydraulic capacity. During replacement of the air stripper, the equalization tank influent was modified to help minimize particulate flowing from the filters to the air stripper.
- Minor separate phase material was noted in extraction well E-4 during the 2003/2004 shutdown of the extraction system. The material was passively collected and properly disposed of off site. The extraction well was then placed back on line. No separate phase material has been observed since that time.
- Members of the HSRG met with the U.S. EPA and the WDNR at the U.S. EPA Region 5 Headquarters in Chicago, Illinois in August 2005 to discuss the status of the recommendations presented in the 2001 Five-Year Review Report and the potential for modifying the existing O&M program. The HSRG discussed the potential for optimizing the environmental monitoring program and the potential long-term suspension of groundwater extraction and treatment. The U.S. EPA and the WDNR suggested that a "Pilot Test" be proposed by the HSRG for temporary system shutdown. Implementation of the "Pilot Test" Work Plan could provide technical data for further evaluation of the appropriateness of groundwater remedy modification, which may include a monitored natural attenuation component with long-term groundwater monitoring. The HSRG is currently preparing a "Pilot

Test" Work Plan and should consider submittal of the Work Plan to the U.S. EPA and the WDNR for their comment.

5.0 FIVE-YEAR REVIEW PROCESS

The WDNR conducted an inspection of the HDL Site on April 28, 2006, and was accompanied by representatives from the HSRG and their consultant. The purpose of the inspection was to assess the protectiveness of the remedy, including the presence of fencing to restrict access, the integrity of the landfill cap, and other remedial components at the site.

No significant issues related to the landfill cover have been identified. Minor vegetated rivulets were observed along the fence at the landfill perimeter. This condition will be addressed by the HSRG through the addition of soil cover or material to minimize the potential for erosion under the fence.

A comprehensive review of the Quarterly Reports for the site since 2001 was performed in preparation of this report. In addition, the WDNR obtained input from the HSRG consultant. The technical assessment of the data and information obtained during the performance of the five-year review is presented in Section 6.0.

The community was notified through a Public Notice published in the Milwaukee Journal Sentinel, Milwaukee, Wisconsin, on May 2, 2006, that the WDNR in conjunction with the U.S. EPA is conducting a second 5-year review of the HDL. The community was invited to contact the Wisconsin Department of Natural Resources Project Manager with questions or comments (see Appendix C for a copy of the Affidavit of Publication and the Public Notice). The HSRG was notified through a letter to Mr. Lawrence J. Buechel, of Waste Management, Project Coordinator for the HSRG. (see Appendix C). No outstanding Environmental Justice Initiative issues were identified for the Site during the course of this review.

6.0 TECHNICAL ASSESSMENT

Question A: Is the remedy functioning as intended by the decision documents?

Yes. Nothing observed at the Site would be considered an imminent threat to the integrity of the remedy in place. The fence around the Site is intact and in good condition. The slurry wall, landfill cover system, landfill gas extraction system, and groundwater extraction and treatment system are operating adequately. The slurry wall's ability to maintain a sufficient inward gradient is being closely monitored. A complete review of the institutional controls will be performed at the Site to determine if the remedy is functioning as intended with regard to the ICs. The IC study and plan will be completed within six months after the date of this Five Year Review Report.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid?

Yes. There have been no changes in conditions at the Site that would affect the protectiveness of the remedy.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

No. There is no other information that calls into question the protectiveness of the existing remedy.

Technical Assessment Summary

The remedy, which is identified as containment, is functioning as designed, and the institutional controls have been implemented. The systems are operating and being maintained as needed for continued operation. Data are compiled, evaluated, and reported on a quarterly basis to the U.S. EPA and the WDNR.

Slurry Wall: The slurry wall with the designed gap has been in place since November 1995. The final Operations and Maintenance Plan for the RA indicates that soil-bentonite slurry will be added to any section of the slurry wall that has receded or settled more than 3 feet during the O&M period. Since there has been no evidence of slurry wall failure, or minor settling/receding, the slurry wall system has required no maintenance or repairs since installation.

Landfill Cover System: The landfill cover has been in place since November 1996. Vegetative planting of the landfill cover has yielded a dense, healthy vegetative growth. The cover is well protected by this vegetation, including portions of the site along the banks of the Root River. There are no indications of air migration through the cover system, and there is no evidence of disturbance to the cap. The landfill has continued to produce flammable landfill gas with low oxygen levels. The landfill cover and slurry wall continue to operate as designed.

Landfill Gas Extraction System: The landfill gas extraction system consists of five horizontal gas collection trenches, a collection header, blower, flare, and valves. Startup of the system occurred on July 14, 1997. The system consists of operating the blower, which causes a vacuum effect that draws landfill gas through the collection trenches and header to the blower. The blower then sends the gas to the flare unit, where the gas is combusted. Valves at each of the horizontal gas collection risers, and at the blower, control the gas flow to maintain methane and oxygen content within prescribed ranges. Through the course of O&M activities only minor maintenance work has been required. Other activities performed on the landfill gas system include monthly readings of landfill gas characteristics (methane and oxygen content).

Overall, the landfill gas collection system appears to be operating satisfactorily. The system has not depleted the landfill gas although there is variability in the methane concentration at each of the risers and the LFG extraction system is operated using a sequence of 1-hour on and 3-hours off. This ensures that LFG continues to be withdrawn from gas collection trenches and combusted at the flare (Figure 2).

Groundwater Extraction and Treatment System: Startup of the groundwater extraction system occurred on August 4, 1997. The groundwater extraction and treatment system consists of five extraction wells and pumps, vault structures, equalization tank, particulate filters, air stripper, blower, pumps, outfall structure, system piping, and electronic control and monitoring system. Overall, the groundwater treatment system is functioning, as designed. Historically there have been no problems with the extraction wells or vaults, however, extraction wells E-3, E-4, and E-5 continue to yield lower volumes of water relative to extraction wells E-1 and E-2. These lower yields are believed to be the result of the variable thickness of the aquifer underlying the landfill. In the vicinity of extraction well E-5, the aquifer, which is composed of saturated, permeable outwash material, is relatively thin (approximately 1 foot).

An inward gradient is maintained at well pairs P2A/P2B and P3A/P3B on the east side of the landfill and at P1A/P1B greater than 66% of the time on the northwest side of the landfill. An inward gradient has not been established at monitoring location P4BR/MW11D which is located on the southwest side of the landfill. Groundwater likely passes through the opening in the slurry wall and into the Root River, and Root River water likely enters through the

opening, depending upon relative surface water and groundwater levels. MW11D is located 20 feet from the bank of the Root River, just outside the slurry wall at this location. Water quality at this location has been monitored throughout the O&M phase. No impacts to water quality have been identified at this location besides background concentrations of metals that exceed the enforcement standards (ESs).

Four of the five extraction well pumps and the equalization tank have operated without problem during the O&M activities. Extraction well E-4 was inoperable for a short period of time due to the presence of free-phase material that was collected and manifested for off-site disposal. There have been periodic discrepancies between the pumps and the flow meters that have been addressed during regular O&M activities by general cleaning and repair. Over 16 million gallons of groundwater have been removed and treated since startup of the extraction system.

With the installation of the new air stripper in 2005, minor adjustments were performed on the equalization tank during the course of O&M activities, and the unit has been operating satisfactorily.

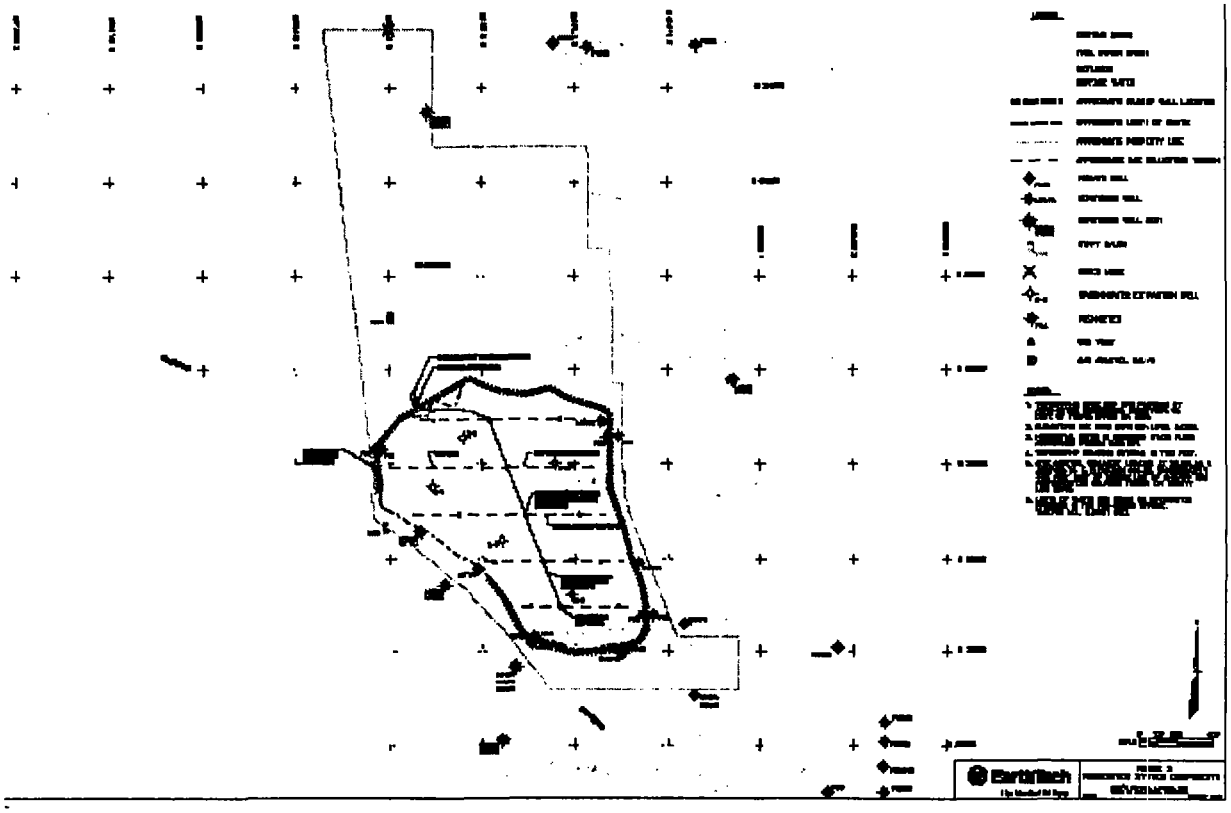


Figure 2

The filter bags (in-line just prior to the air stripper) are changed regularly as part of the ongoing O&M activities. The purpose of the filter bags is to remove solids from the water prior to introduction into the air stripper. The filter bags are removed on an as-needed basis and the spent bags are dried and disposed of off site.

The groundwater treatment system is functioning effectively. Effluent limits have been adequately met by the treatment system. Influent concentrations to the air stripper have been below effluent surface water discharge standards since the treatment system has been operational.

Groundwater monitoring is performed on a quarterly basis in accordance with the site-specific Quality Assurance Project Plan (QAPP) and O&M Plan. Subsequent to the 1990 ROD, additional groundwater studies were performed to assist in the development of the long-term monitoring program. The results of these findings are summarized in the Groundwater Extent of Contamination Investigation Technical Memorandum (April 1993). Historically, results of monitoring have yielded relatively consistent results. Analysis of data collected within the past 5 years indicates continued decreasing and/or stable trends for contaminants of concern in groundwater.

Electronic Control and Monitoring System: The electronic control and monitoring system provides for continual electronic data acquisition as well as daily remote monitoring and data recording of the groundwater and LFG collection and treatment systems. The monitoring systems have been performing adequately as designed, with minor repairs through the course of O&M activities. The control and monitoring systems are electronic devices susceptible to electronic and magnetic interferences (storms). Power is supplied to the treatment system by WE Energies. As with any community electrical supply, the power supply can be interrupted, by the weather (e.g., lightning strikes) or other disruptions to the power supply grid (e.g., trees falling on lines disrupting service or power surges). The treatment system is designed with a power conditioner/ uninterruptible power supply (UPS) to protect the treatment system's computer control system from possible electrical surges and interruptions. While the UPS will protect the computer control system from short-term interruptions, any longer-term interruptions (e.g., seconds to minutes in length) will cause the treatment equipment motor control relays, starters, and thermo protection devices to "drop out" shutting down the treatment system. Outages identified by WE Energies are reported in the Quarterly Reports.

Institutional Controls: ICs are non-engineered instruments, such as administrative and legal controls that help to minimize the potential to exposure to contamination and that protect the integrity of the remedy. ICs are required to assure long-term protectiveness for any areas which do not allow for unlimited use or unrestricted exposure (UU/UE). On August 19, 1992, a Declaration of Restrictions on Use of Real Property was recorded in the chain of title. The following restrictions apply to the HDL Site property:

- There shall be no consumptive or other use of the groundwater underlying the property;
- There shall be no use of, or activity at, the property that may interfere with the work performed or to be performed under the Consent Decree at the property, or any activity which may damage any remedial action component contracted for or installed pursuant to the Consent Decree or otherwise impair the effectiveness of any work to be performed pursuant to the Consent Decree;

- There shall be no installation, construction, removal or use of any building, wells, pipes, roads, ditches, or any other structures at the property except as approved by the U.S. EPA as consistent with the Consent Decree; and
- There shall be no residential use of the property.

These property controls are appropriate and adequate for the HDL Site. The controls are intended to effectively eliminate potential pathways for exposure to contaminants located on the property (see Appendix A for a copy of the Deed Restrictions on file with the Racine County Register of Deeds office, Vol.2177, pages 6-10).

The National Contingency Plan (NCP) uses the term "deed restrictions" generally as a type of institutional control. The term "deed restrictions" has no clear meaning in traditional property law but is used to refer generally to proprietary controls such as restrictive covenants and easements on the property. The recorded deed restrictions must be evaluated to ensure that they are effective and enforceable.

An institutional controls study will be completed for the Site within six months after the date of this Five-Year Review Report. Among other things, the institutional controls study should investigate whether the deed restrictions put in place for the Site in 1992 were conveyed by a person with authority to make the conveyance; whether the deed restrictions are still validly in place (and have not been lifted or superceded); whether the terms of the deed restrictions create rights that can be enforced by U.S. EPA or WDNR in the event that the deed restrictions are violated; and whether the deed restrictions are, in fact, still being complied with.

U.S. EPA will create an IC Plan which will include steps necessary to ensure that effective ICs are implemented and maintained. As part of the plan, U.S. EPA will request the PRPs undertake an IC Study to ensure that effective ICs have been implemented. Also, U.S. EPA will request assurances for long-term stewardship including regular inspections of the Site and an annual certification to U.S. EPA that ICs are effective and that IC maps be completed. The IC maps will be made available on U.S. EPA's Superfund Data Management System (SDMS) and will serve as an additional IC informational control.

7.0 ISSUES

No significant issues were identified during the technical assessment, document review, or site inspection for the site remedy. The following issues were identified, but do not affect the protectiveness of the remedy:

- Minor vegetated rivulets were observed along the landfill perimeter fence and should be addressed by the HSRG through the addition of soil cover or material to minimize erosion under the fence;

- Although the groundwater extraction system is operating as designed, an inward gradient is not maintained at all locations within the slurry wall. Groundwater from the HDL Site likely flows through the opening in the slurry wall. However, no adverse impacts have been identified;

- A complete review of the institutional controls should be performed at the Site to assure that the remedy is functioning as intended with regard to the ICs; and

- Long-term stewardship needs to be assured for the Site. This will be provided through implementation of the IC plan which will be monitored.

8.0 RECOMMENDATIONS AND FOLLOW-UP ACTIONS

This five-year review has summarized the remedial activities and current O&M activities at the HDL Site. The following actions should be considered for continued O&M and optimization of the implemented remedy:

Recommendations/ Follow-up Actions	Responsible Party	Oversight	Milestone	Affects Protectiveness (Y/N) Current/ Future
Complete IC study*	PRPs	U.S. EPA and WDNR	March 2007	Current – No Future - Yes
Complete IC plan	U.S. EPA and WDNR	U.S. EPA and WDNR	March 2007	Current – No Future - Yes
The HSRG should consider preparing & submitting a pilot test work plan to evaluate the efficacy of maintaining the current risk protection for the site while modifying the remedy components & sampling protocol.	PRPs	U.S. EPA and WDNR	September 2007	Current – No Future - Yes
Continue to inspect the vegetated rivulets along the fence to determine if additional erosion protection is required	PRPs	U.S. EPA and WDNR	On-going	Current – No Future - Yes
Continued monitoring of MW11D and PA1/PB1 to ensure protectiveness	PRPs	U.S. EPA and WDNR	On-going	Current – No Future - Yes

*To: 1) Determine whether deed restrictions are in place; 2) evaluate the existing ICs to determine effectiveness and enforceability; 3) update site ICs, if needed, to ensure that the ICs are properly recorded to give notice to future landowners for information relevant to land use restrictions and are enforceable; 4) prepare accurate maps of all areas that require land and groundwater restrictions; and 5) provide revision to the O&M plan to include mechanisms to ensure regular inspections of ICs at the site, an annual certification to U.S. EPA that ICs are in place and effective, and a communication plan.

9.0 PROTECTIVENESS STATEMENT

Hazardous substances, pollutants, or contaminants remain at the Hunt's Disposal Landfill Site and require continued O&M of the RA, as well as access controls. Exposure pathways that could result in unacceptable risks are being controlled through the implemented RA. The remedy continues to operate and is protective of human health and the environment. Periodic flooding of the Root River continues but does not appear to adversely affect the effectiveness of the remedy. Long-term protectiveness of the remedial action will be verified by continued monitoring of the landfill gas and groundwater conditions at the site.

Exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of the remedy appear to be valid. Due to the implementation of the remedy, the risk has decreased. Data indicate that there continue to be no ecological risks, and human health risks were addressed by the remedy. Institutional controls have been implemented (which will be subject to an institutional controls study to ensure continued adequacy implementation) and the technical issues address risk. In order for long-term protectiveness to be achieved, effective institutional controls must be implemented and maintained. An institutional controls study and plan will be implemented, maintained and monitored within six months after the date of this Five-Year Review Report.

10.0 NEXT REVIEW

The next five-year review for the Hunt's Disposal Landfill Site is required by September 2011, 5 years from the date of this review.

Appendix A

Deed Restriction

Return to Corporation Counsel

1386866

REV:08/19/92

DECLARATION OF RESTRICTION ON USE OF REAL PROPERTY

The record owner hereby declares and imposes the following restrictions on the real property (also known as the Hunt's Disposal Landfill - "HDL") located in the County of Racine, Caledonia Township more particularly described as follows:

The southerly 1400 plus or minus feet of the following described parcels:

The Southwest 1/4 of the Northeast 1/4 of Section 3, T4N, R22E, except therefrom the Chicago and Northwestern Railway right-of-way.

Also that part of the Southeast 1/4 of the Northwest 1/4 of Section 3 lying East of the Chicago and Northwestern Railway right-of-way.

Also that part of the Southeast 1/4 of Section 3, T4N, R22E more particularly described as follows: Beginning at the Northwest corner of the said Southeast 1/4 of Section 3; thence southerly on and along the West line of said 1/4 Section, 100.0 feet more or less to the center of the Root River; thence Southeasterly on a meander line and along the center of said river to a point which is 726.0 feet South of the North line of said 1/4 Section; thence easterly and parallel to the North line of said 1/4 Section to a point which is 264.0 feet East of the West line of the East 1/2 of the said Southeast 1/4; thence northwesterly to the Northwest corner of the East 1/2 of the said Southeast 1/4; thence westerly on and along the North line of said Southeast 1/4 to the Northwest corner of said Southeast 1/4 and the place of beginning, excepting therefrom the right-of-way of the Chicago and Northwestern Railway.

Part of 004-04-22-03-008-000

RECITALS

WHEREAS, the United States Environmental Protection Agency (U.S. EPA) has issued a Record of Decision adopting a remedial action plan which requires remedial action to be undertaken on the

5719 06 20 1330 1

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property and further institutional controls to assure that the remedy is protective of human health and the environment;

WHEREAS, the United States District Court for the Eastern District of Wisconsin has approved a Consent Decree entered into between the United States of America and certain Settling Defendants and Settling Defendants (in a case styled United States of America v. Waste Management of Wisconsin, Inc., et al.) which Consent Decree concerns the remedial actions to be undertaken at the HDL property. Section V of the Consent Decree and the Statement of Work ("SOW") attached to the Decree identify institutional controls which are necessary to effectuate and protect the remedial action at the HDL and to protect the public health or welfare or the environment at the HDL site;

NOW, THEREFORE, by this instrument there are created, declared and established at the property the following restrictive covenants and requirements, which shall, unless amended, run with land and remain in full force and effect in perpetuity from the date hereof, irrespective of any sale, conveyance, alienation, or other transfer of any interest or estate in such property.

RESTRICTIONS APPLICABLE TO THE PROPERTY

The following restrictions shall apply to the property described above:

1. There shall be no consumptive or other use of the groundwater underlying the property.

2. There shall be no use of, or activity at, the property that may interfere with the Work performed or to be

performed under the Consent Decree at the property, or any activity which may damage any remedial action component contracted for or installed pursuant to the Consent Decree or otherwise impair the effectiveness of any Work to be performed pursuant to the Consent Decree.

3. There shall be no installation, construction, removal or use of any buildings, wells, pipes, roads, ditches or any other structures at the property except as approved by the U.S. EPA as consistent with the Consent Decree and SOW.

4. There shall be no residential use of the property.

The restrictions specified above shall continue in full force and effect until the HOL site is deleted from the National Priorities List, all remedial action clean-up and performance standards have been met, or until such time as the U.S. EPA issues a determination in writing or the court rules to either modify or terminate the restrictions in response to a petition from the owner(s) of the property, as provided below.

COPY OF RESTRICTIONS

A copy of these restrictions shall be provided by the owner(s) of the property to all respective successors, assigns and transferees of the property.

PETITION TO MODIFY OR TERMINATE DEED RESTRICTIONS

After all Work, as defined in the Consent Decree and SOW, has been completed and upon achievement of Cleanup Standards, consistent with the Consent Decree and SOW, the owner(s) of the property may petition the Regional Administrator of the U.S. EPA, Region V, or his delegate, to modify or terminate the deed restrictions. Any petition for modification or termination shall

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state the specific provision sought to be modified or terminated any any proposed additional uses of the property. Any proposed modification or terminations must not be inconsistent with the requirements set forth in the Consent Decree and SOW.

The property owner(s) shall provide to the settling Defendants a copy of any petition for modification or termination of deed restrictions submitted to the U.S. EPA. Any party may object to the proposed use of the property on the grounds that such use is not consistent with the Consent Decree or the SOW, or may result in exceedances of the Clean-up Standards required by the Consent Decree. Any party so objecting shall notify the owner(s) of the property, the U.S. EPA, and the State of Wisconsin in writing, within thirty (30) days of receipt of the petition. The Regional Administrator may allow or deny the owner's petition for modification or termination in whole or in part. Any dispute as to the Regional Administrator's determination is subject to Section XIV (Dispute Resolution of the Consent Decree.

SEVERABILITY

If any provision of this Declaration of Restriction On Use of Real Property is held to be invalid by any court of competent jurisdiction, the invalidity of such provision shall not affect the validity of any other provisions hereof. All such other provisions shall continue unimpaired in full force and effect.

CONFLICT OF LAWS

If any provision of this Declaration of Restriction On Use of

Real Property is also the subject of any law or regulation established by any federal, state or local government, the stricter of the two standards shall prevail.

HARMONIOUS CONSTRUCTION

No provision of this Declaration of Restriction On Use of Real Property shall be construed so as to violate any applicable zoning laws, regulations or ordinances. If any such conflict does arise, the applicable zoning laws, regulations or ordinances shall prevail, unless they are inconsistent with CERCLA.

* * *

The undersigned persons executing this Declaration of Restrictions On Use of Real Property on behalf of the owner(s) of the property represent and certify that they are duly authorized and have been fully empowered to execute this Declaration.

IN WITNESS WHEREOF, the owner(s) of the property have caused this Declaration of Restrictions On Use of Real Property to be executed on this 19 day of August, 1992.

RACINE COUNTY

BY: Joan C. Rennert
Joan C. Rennert
County Clerk

Subscribed and sworn to before me this 19 day of August, 1992.

Mark Janiuk
Notary Public, Racine County, WI
My Commission Expires: permanent

This instrument was drafted by:

Mark Janiuk
Mark Janiuk
Racine County Corporation Counsel

- 5 -

Register's Office } ss
Racine County, Wis.
Received for Record 19th day of August A.D. 19 92 at 2:03 o'clock P.M. and recorded in Volume 2177 of Records on page 5-10

Jean M. Schutten
Register of Deeds

18.-

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Appendix B

Site Photos

Photo 1. Main entrance to site

Photo 2. Warning Sign near Main Gate

Photo 3. Site Perimeter Security Fence

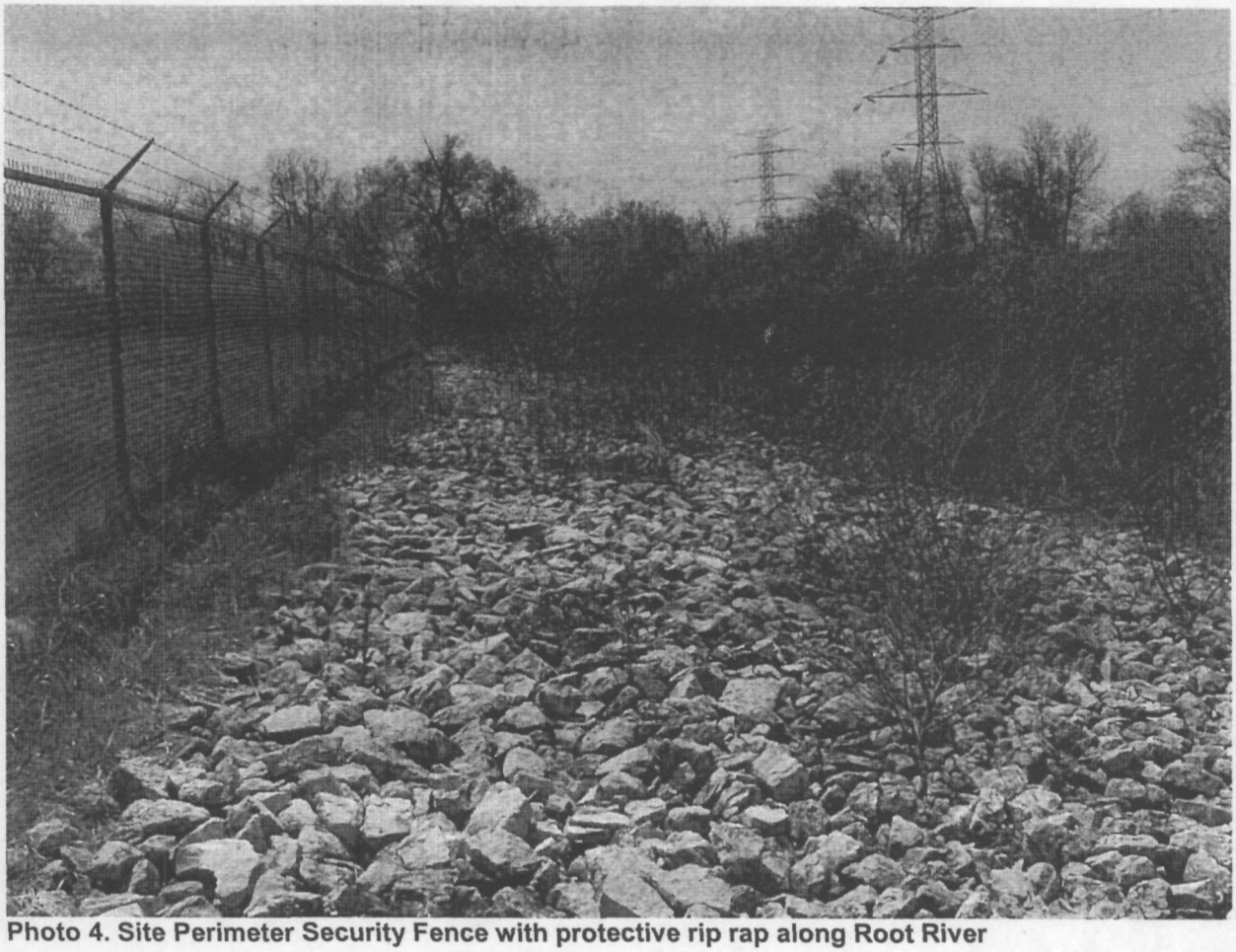

Photo 4. Site Perimeter Security Fence with protective rip rap along Root River

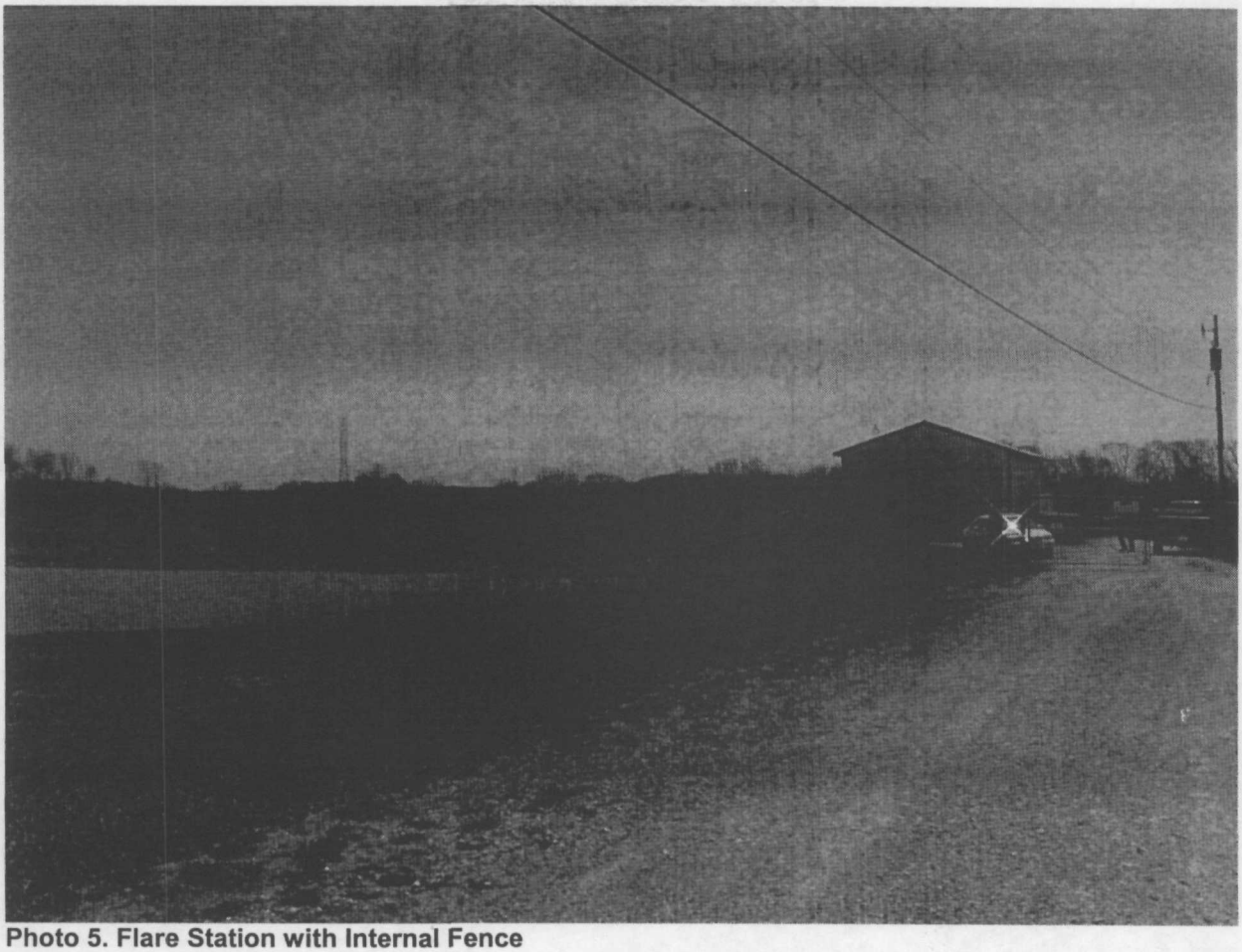

Photo 5. Flare Station with Internal Fence

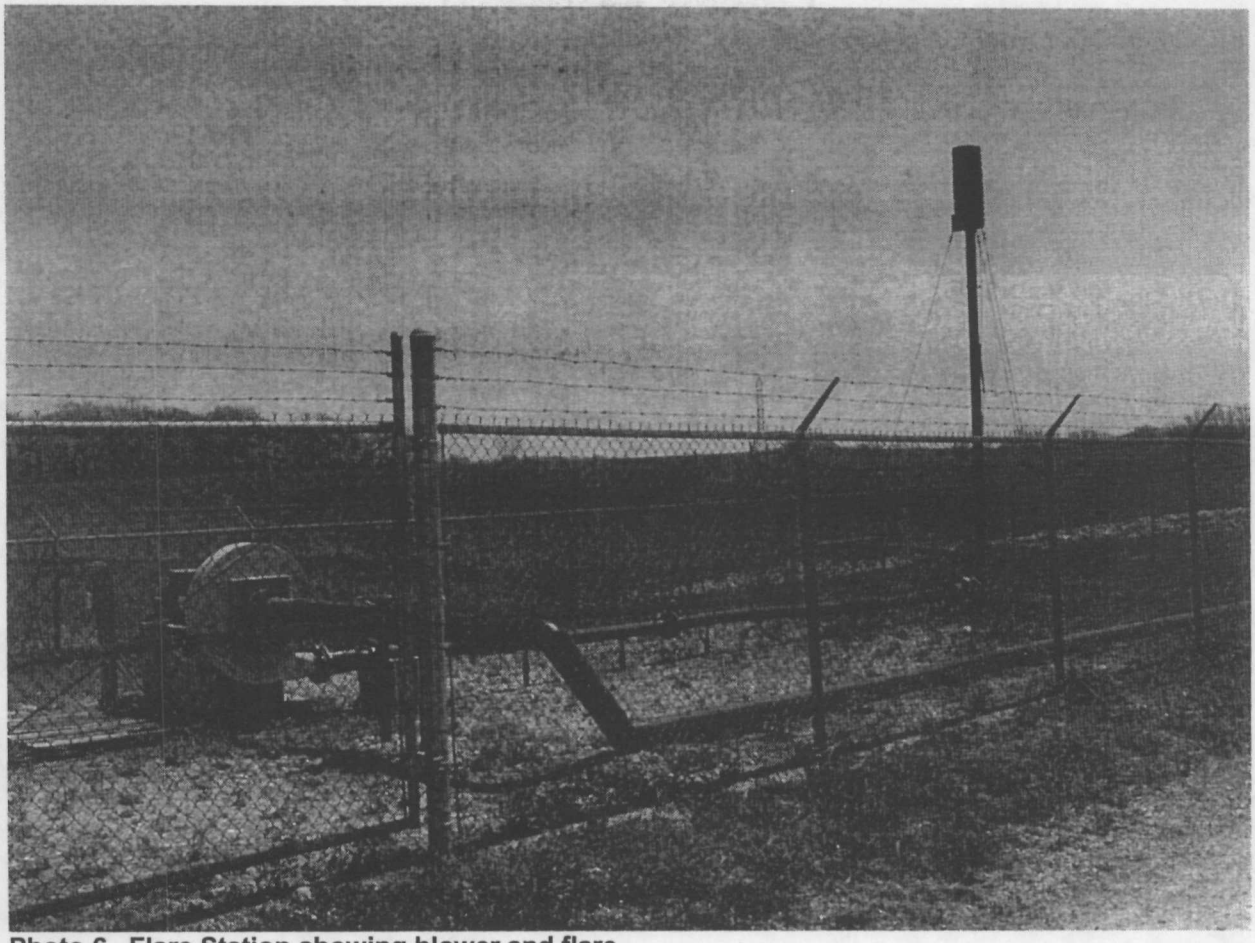

Photo 6. Flare Station showing blower and flare

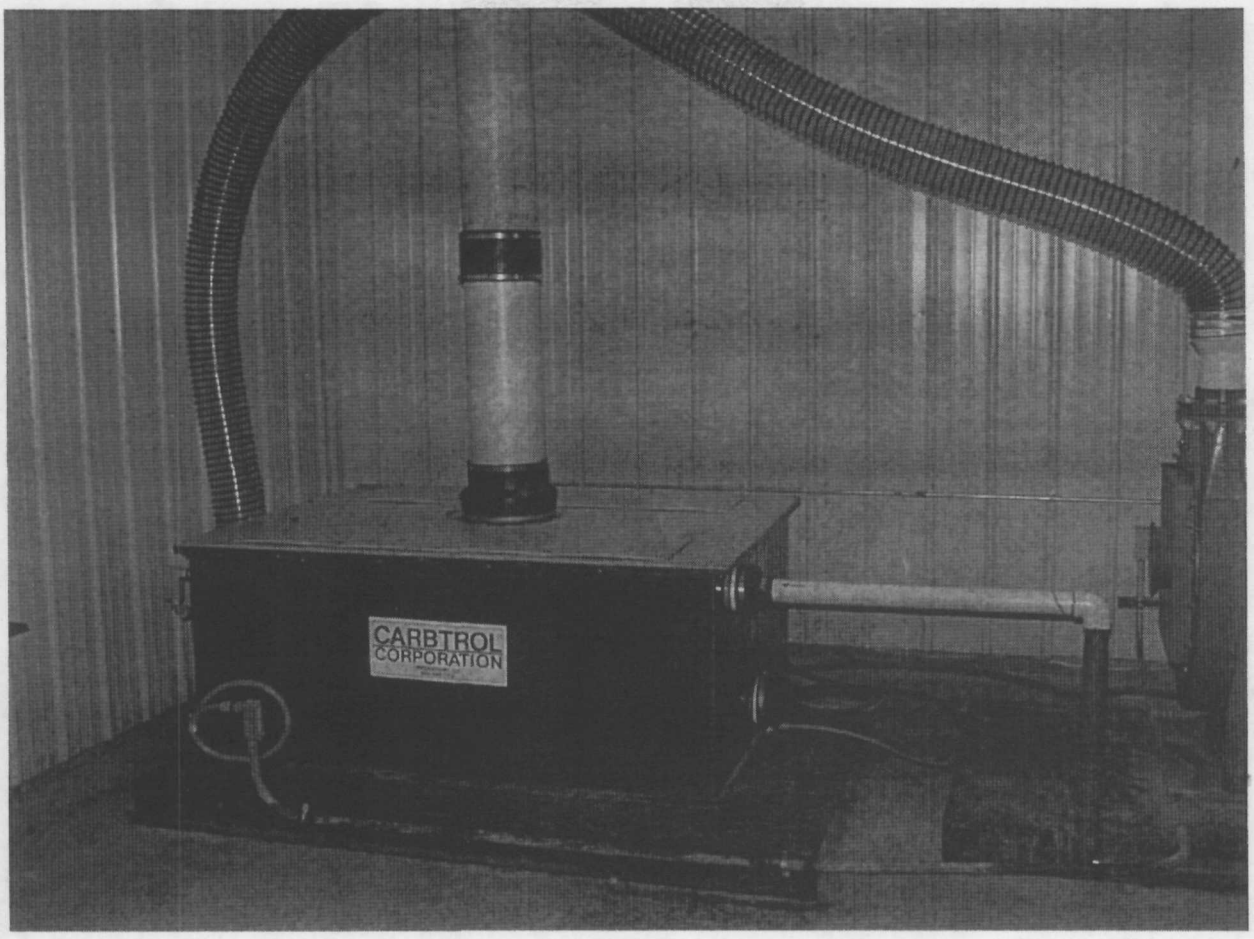

Photo 7. Air Stripper

Appendix C

Public Notices

2323453
5/02/06
AFFIDAVIT OF PUBLICATION

State of Wisconsin DNR
1155 Pilgrim Road
Plyamouth Service Center
Plymouth, WI 53073
Attn: Tom Wentland

Michele Harris here by states that she is authorized by Journal Sentinel Inc. to certify on behalf of Journal Sentinel Inc., publisher of the Milwaukee Journal Sentinel and The Sunday Journal Sentinel, public newspapers of general circulation, printed and published in the city and county of Milwaukee; that a notice of which the printed one here to attached is a true copy, was published in the Daily Edition of the Milwaukee Journal Sentinel on the second of May 2006. That the Milwaukee Journal Sentinel and The Sunday Journal Sentinel are newspapers printed in the English language and that said printed copy was taken from said printed newspaper(s).

Michele Harris

State of Wisconsin)
) SS:
County of Milwaukee)

Subscribed and sworn before me this 3 day of May, 2006.

Notary Public State of Wisconsin
My Commission Expires 2-21-10

Hunt's Disposal Landfill
Public Notice
April 2006

The Wisconsin Department of Natural Resources in conjunction with the United States Environmental Protection Agency is conducting a 5-year review of the Hunt's Disposal Landfill, in the Town of Caledonia, Racine County, Wisconsin with an anticipated completion date of September 28, 2006.

The remediation remedy for the site consisted of installing a clay cap on the landfill, a clay slurry wall around the landfill, groundwater extraction wells and a methane gas extraction system. These controls were installed to achieve the following objectives:

- Clay cap, reduce the amount of surface water infiltration into the landfill
- Slurry wall, control the off-site migration of groundwater
- Groundwater extraction wells, remove groundwater for treatment and maintain inward groundwater movement
- Methane extraction system, collect and manage landfill gas

Inorganic contaminants of concern include arsenic, barium, chromium, manganese, and nickel. Organic contaminants include vinyl chloride, trichloroethene, 1,1-dichloroethane, 1,1-dichloroethene, benzene, naphthalene, and xylene. The source of this contamination was attributed to the landfill, particularly since some of the wastes were located below the water table (upper aquifer) thus, providing a continuing source of groundwater contamination. The highest degree of groundwater contamination was found between the landfill and the Root River and along the southern tip of the landfill. It was determined during preliminary investigations that the contaminated groundwater under the landfill flows into the Root River. Due to the up gradient location of the nearby residential wells, contamination of the drinking water supply from the landfill was not deemed a concern.

Public comments and questions during the course of the 5-Year Review can be directed to Thomas A. Wentland, Wisconsin Department of Natural Resources, 1155 Pilgrim Road, Plymouth, WI, 53073, telephone 920-892-8756 Ex. 3028 or email, Thomas.wentland@dnr.state.wi.us.

The scheduled completion date of this 5-Year Review is September 28, 2006.

WISCONSIN
DEPT. OF NATURAL RESOURCES

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Plymouth Service Center
1155 Pilgrim Rd.
Plymouth, Wisconsin 53073-4294
Telephone 920-892-8756
FAX 920-892-6638
TTY Access via relay - 711

Jim Doyle, Governor
Scott Hassett, Secretary
Gloria L. McCutcheon, Regional Director

January 5, 2006

Mr. Larry Buechel
Waste Management
N96 W13600 County Line Road
Germantown, WI 53022

Subject: Notification of the Second Five Year Review Start for the Hunts Disposal Landfill

Dear Mr. Buechel:

This letter is to provide notification that the Wisconsin Department of Natural Resources has begun the process of the Five Year Review for the Hunts Disposal Landfill. A Statutory Five Year Review for the Site will be conducted at the Site as required by Section 121 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA).

The Second Five Year Review for the Hunts Disposal Landfill is due on September 28, 2006, and since there are several topics to be covered in the review, it is appropriate that the Wisconsin Department of Natural Resources provide key parties at least six months notice so that we can begin the necessary coordination activities. Necessary activities include such matters as notifying the public of the Five Year Review process and accepting public input, gathering data in order to summarize performance of site hazardous substance and key contaminant treatment devices, arranging for site visits and inspections to review remediation and operation and maintenance functions, develop any pertinent recommendations, etc. I suggest that we set up a site visit for the end of April 2006 to further discuss the data gathering process, and look ahead to other key milestones. Such milestones would include release of an ad or other notice to the general public about the review process, and considering a time for the "official" site inspection which must take place within 90 days of the expected Five Year Review Report date, i.e., June 2006 for an expected September 2006 report due date.

I look forward to working with Waste Management and the United States Environmental Protection Agency in completing the Second Five Year Review for the Hunts Disposal Landfill.

Sincerely,

Thomas A. Wentland
Waste Management Engineer
Remediation and Redevelopment

Cc/ Susan Pastor US EPA
Linda Kern US EPA